REMARKS

Claims 8, 9, 19, 20, 25 and 29-38 are pending in the application. It is gratefully acknowledged that Claims 32, 35 and 37 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. The Examiner objected to Claim 8, 19 and 29 as containing informalities. The Examiner rejected Claims 8, 9, 19 and 20 under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner has rejected Claims 8 and 19 under 35 U.S.C. §103(a) as being unpatentable over Citation #4 ("Text Proposal Regarding TFCI Coding For FDD", TSGR1#7(99)D69, August 30 - September 3, 1999) in view of Wicker (Stephen B. Wicker, Error Control Systems for Digital Communication and Storage, Prentice-Hall, 1996, pages 149-155). The Examiner has rejected Claim 9 and 20 under 35 U.S.C. §103(a) as being unpatentable over Citation #4 in view of Wicker. The Examiner has rejected Claims 25, 29, 36 and 38 under 35 U.S.C. §103(a) as being unpatentable over Citation #4 and Wicker, in view of Citation #7 ("Harmonization Impact On TFCI And New Optimal Coding For Extended TFCI With Almost No Complexity Increase", TSGR#6(99)970, July 13-16, 1999). The Examiner has rejected Claims 30, 31, 33 and 34 under 35 U.S.C. §103(a) as being unpatentable over Citation #4, Wicker and Citation #7.

Please add new Claims 39-44. No new matter has been added. Please amend Claims 8, 19, 25, 29-31, 33 and 34, as set forth herein.

The Examiner objected to Claim 8, 19 and 29 as containing informalities. The Examiner is requiring the acronym "TFCI" to be defined in the claims. Claims 8, 19 and 29 have been amended herein to incorporate the definition of "TFCI". Based on at least the foregoing, withdrawal of the objections to Claims 8, 19 and 29 is respectfully requested.

The Examiner rejected Claims 8, 9, 19 and 20 under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner states that "the sequence of 2^n symbols" and "the sequence of m symbols" recited in Claims 8 and 19, all lack antecedent basis. Claim 8 and 19 have been

amended to change "the sequence of 2^n symbols" to "sequences output", and "the sequence of m symbols" to "the sequence of 48 symbols". Based on at least the foregoing, withdrawal of the rejections of Claims 8, 9, 19 and 20 under 35 U.S.C. §112 is respectfully requested.

Please note that with respect to Claims 9, 20, 25, 29-31, 33, 34, 36 and 38, the Examiner bases his obviousness rejections solely on an unsupportable conclusion that since there is only a finite number of puncturing patterns, masking sequences, and/or Walsh codes, any combination created therefrom would be obvious. Of course, Applicants respectfully disagree with the Examiner.

Although there may be a finite number of patterns, sequences or codes, the 16 position/bit combinations of the 64 available positions/bits are astronomical, and therefore cannot be considered obvious. For example, with respect to determining a puncturing pattern, the total number of combinations to choose from is given by:

$$_nC_k = \frac{n!}{k!(n-k)!}$$

which produces a total number of possible combinations of ***488,526,937,079,580***. The amount of experimentation and analysis needed to determine optimal puncturing patterns in and of itself removes the claim element from any unsupported obviousness rejection.

Still further, the claims of the present application incorporate the orthogonal sequences, the masking sequences and the puncturing patterns that further increase the possible combinations. The obviousness rejections of any of Claims 9, 20, 25, 29-31, 33, 34, 36 and 38 cannot stand.

Based on at least the foregoing, withdrawal of the rejections of Claims 9, 20, 25, 29-31, 33, 34, 36 and 38 is respectfully requested.

The Examiner has rejected Claims 8 and 19 under 35 U.S.C. §103(a) as being unpatentable over Citation #4 in view of Wicker. Citation #4 relates to (32,10) coding for

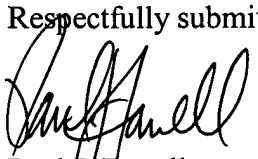
improving (32,6) or (16,5) TFCI coding. Block coding is defined by a unique sequence, puncturing pattern, etc. in accordance with a coding length. That is, when a coding length is changed, a completely different code is required by a channel that requires changing the entire coding structure. Accordingly, Claims 8 and 19 of the present application, which describe a new sequence and puncturing pattern for (48,10) coding, is distinguished from the references. Based on at least the foregoing, withdrawal of the rejections of Claims 8 and 19 under 35 U.S.C. §103(a) is respectfully requested.

The Examiner has rejected independent Claims 25 and 29 under 35 U.S.C. §103(a) as being unpatentable over Citation #4 and Wicker, in view of Citation #7. Each of Claims 25 and 29 recite a specific puncturing pattern. Based on the foregoing puncturing pattern analysis, the rejections must be withdrawn. Based on at least the foregoing, withdrawal of the rejections of Claims 25 and 29 under 35 U.S.C. §103(a) is respectfully requested.

Independent Claims 8, 19, 25 and 29 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 9, 20 and 30-38, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 9, 20 and 30-38 is respectfully requested. Furthermore, new dependent Claims 39-44 are believed to be patentable for at least the reasons given above with respect to the independent claims from which they depend.

Accordingly, after entry of this Response, all of the claims pending in the Application, namely, Claims 8, 9, 19, 20, 25 and 29-44, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



Paul J. Farrell
Reg. No. 33,494
Attorney for Applicants

DILWORTH & BARRESE, LLP
333 Earle Ovington Blvd.
Uniondale, New York 11553
Tel: (516) 228-8484
Fax: (516) 228-8516
PJF/MJM/dr